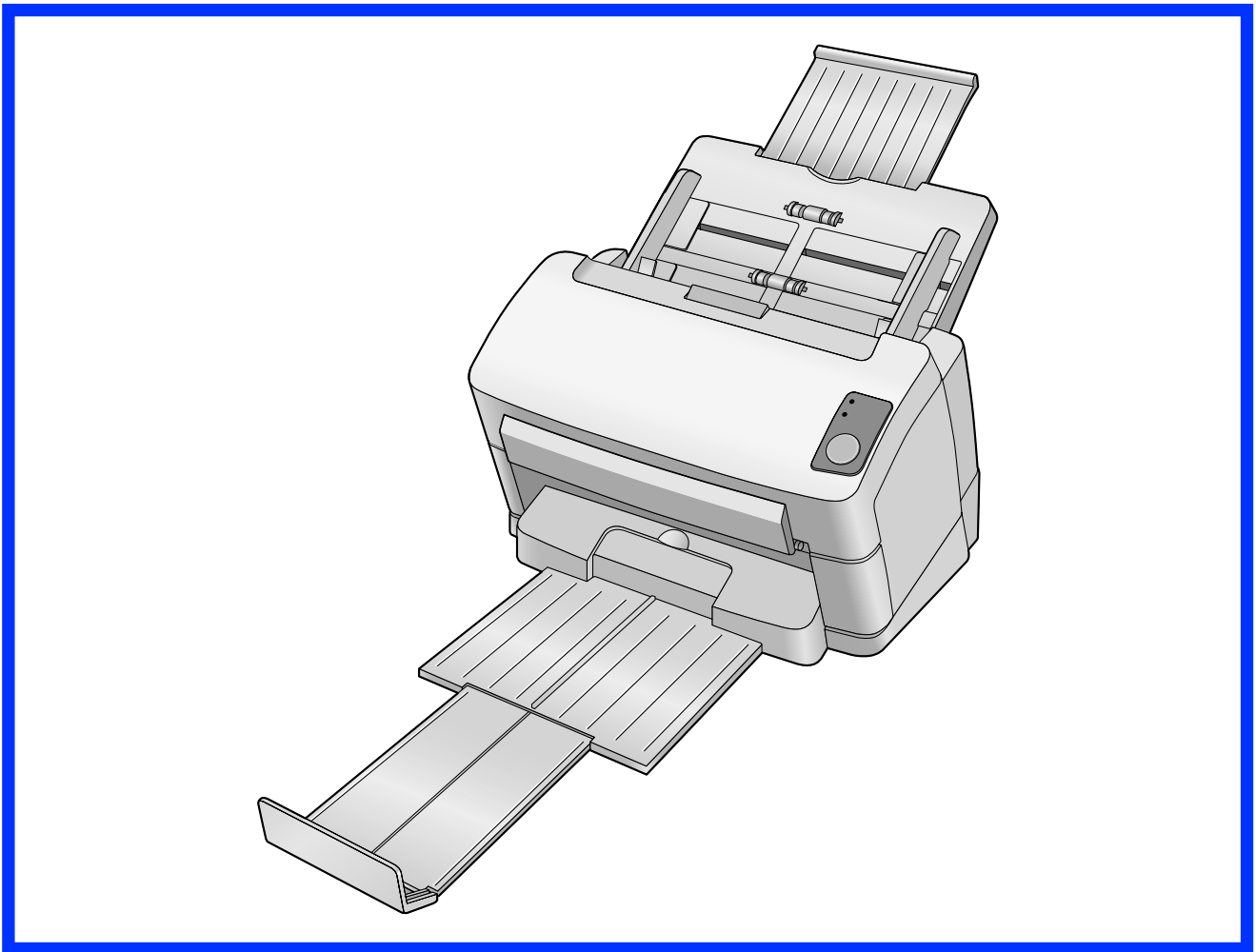


Panasonic[®]

Operating Manual

High Speed Color Scanner

Model No. KV-S1045C



These instructions contain information on operating the scanner. Before reading these instructions, please read the installation manual enclosed with this unit.

Please carefully read these instructions and the enclosed installation manual. Keep all documentation in a safe place for future reference.

Introduction

Thank you for purchasing a **Panasonic High Speed Color Scanner**.

About the documentation

The scanner documentation consists of 2 manuals: the Installation Manual and the Operating Manual. In addition, 3 software reference manuals are included.

Installation Manual (printed documentation)	The Installation Manual explains the installation method and procedures.
Operating Manual (this manual)	The Operating Manual explains the part names, operations, features and maintenance of the unit.
Software Reference Manuals (electronic documentation)	<ul style="list-style-type: none">• PIE Reference Manual Explains the settings of the PIE (Panasonic Image Enhancement Technology) features using the ISIS and TWAIN drivers.• RTIV Reference Manual Explains the features and settings for RTIV (Reliable Throughput Imaging Viewer). (You can view this manual by clicking the help button on RTIV.)• User Utility Reference Manual Explains how to use the User Utility, which is used for scanner maintenance. (You can view this manual by clicking the help button on User Utility.)

Abbreviations

- Windows® refers to the Microsoft® Windows® operating system (hereafter Windows).
- Windows® 2000 refers to the Microsoft® Windows® 2000 operating system (hereafter Windows 2000).
- Windows® XP refers to the Microsoft® Windows® XP operating system (hereafter Windows XP).
- Windows Vista® refers to the Microsoft® Windows Vista® operating system (hereafter Windows Vista).

Trademarks

- Microsoft, Windows, and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- ISIS and QuickScan Pro are registered trademarks or trademarks of EMC Corporation.
- IBM and AT are trademarks of International Business Machines Corporation in the United States, other countries, or both.
- Pentium is a trademark of Intel Corporation in the U.S. and other countries.
- Adobe and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.
- All other trademarks identified herein are the property of their respective owners.

International ENERGY STAR Program



As an ENERGY STAR® Partner, Panasonic has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

System Requirements

Computer	IBM® PC/AT® or compatible machine with a CD-ROM drive
CPU	Pentium® III, 1 GHz or higher
Operating System	Windows 2000 / Windows XP / Windows Vista
Interface	USB 2.0
Memory	256 MB or higher
Hard Disk	5 GB or more free space is required.

Note

- The above system requirements may not satisfy the requirements of all operating systems.
- The scanning speed differs depending on the host computer's operating environment or the application used.
- Due to the slower speed of USB 1.1, it is recommended to use a USB 2.0 interface.
- If you connect the scanner to a USB hub, it is not guaranteed to work.

Federal Communications Commission Requirements (For United States only)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- The user may find the booklet "Something About Interference" available from FCC local regional offices helpful.

FCC Warning: To assure continued FCC emission limit compliance, the user must use the recommended shielded interfacing cable when connecting to a host computer. Also, any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

FCC Declaration of Conformity

Trade Name:	Panasonic
Model Number:	KV-S1045C
Responsible Party:	Panasonic Corporation of North America One Panasonic Way Secaucus, NJ 07094 U.S.A. Telephone No.: 1-800-726-2797

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

For FRG Users (For Germany Only)

- Machine noise information regulation - 3.GPSGV, the maximum sound pressure level is 70 dB(A) or less, in conformity with EN ISO 7779.
- This device is not intended for use in the direct field of view at visual display workplaces. To avoid incommoding reflexions at visual display workplaces this device must not be placed in the direct field of view.

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For Your Safety

To prevent severe injury and loss of life, read this section carefully before using the unit to ensure proper and safe operation of your unit.

- **This section explains the graphic symbols used in this manual.**

	WARNING	Denotes a potential hazard that could result in serious injury or death.
	CAUTION	Denotes hazards that could result in minor injury or damage to the unit.
		This symbol is used to alert operators to a specific operating procedure that must be performed carefully.
   		These symbols are used to alert operators to a specific operating procedure that must not be performed.
 		These symbols are used to alert operators to a specific operating procedure that must be emphasized in order to operate the unit safely.

For Users

WARNING

Power



The power source voltage of this unit is listed on the nameplate. Only plug the unit into an AC outlet with the proper voltage. If you use a cord with an unspecified current rating, the unit or plug may emit smoke or become hot to the touch.



When you operate this product, the power outlet should be near the product and easily accessible.



Connect the AC adaptor firmly to the power cord, and plug the power cord firmly into an AC outlet. Otherwise, it can cause fire or electric shock.



Do not pull, bend, rest objects on, or chafe the power cord, plug, and AC adaptor. Damage to the power cord or plug can cause fire or electric shock.



Do not attempt to repair the power cord, plug, or AC adaptor. If the power cord or plug is damaged or frayed, contact an authorized service representative for a replacement.



Ensure that the plug connection is free of dust. In a damp environment, a contaminated connector can draw a significant amount of current that can generate heat, and eventually cause fire if left unattended over an extended period of time.



Never touch the plug or AC adaptor with wet hands. Danger of electric shock exists.



Stop operation immediately if the unit emits smoke, excessive heat, abnormal smell, or unusual noise. These conditions can cause fire or electric shock. Immediately turn the unit off, and unplug the power cord, and contact your dealer for service.



When disconnecting the unit, grasp the plug instead of the cord. Pulling on a cord forcibly can damage it, and cause fire or electric shock.

Operating Safeguards



If metal fragments or water gets into the unit, turn the unit off, and unplug the unit immediately. Contact your dealer for service. Operating the contaminated unit can cause fire or electric shock.



Do not open covers, and do not attempt to repair the unit yourself. Contact your dealer for service.



Do not alter the unit or modify any parts. Alteration or modification can cause fire or electric shock.



During thunderstorms, do not touch the unit, plug and AC adaptor. It may cause an electric shock.

Roller Cleaning Paper



Do not drink or inhale the roller cleaning paper fluid including isopropyl alcohol.



The roller cleaning paper may be harmful to sensitive skin. Please use protective gloves.



Do not use the roller cleaning paper near a heater or open flame.

CAUTION

Power



The unit should be used only with the power cord and AC adaptor enclosed with the unit.



When the unit is not used over an extended period of time, switch it off, and unplug it. If an unused unit is left connected to a power source for a long period, degraded insulation may cause electric shock, current leakage, or fire.

Installation and Relocation



Do not position the unit in a location where it is unstable.



To prevent fire or shock hazard, do not expose this unit to rain or any type of moisture.



Do not place the unit in a hot humid or dusty environment. Prolonged exposure to these adverse conditions may cause fire or electric shock.



When moving the unit, be sure to unplug the power cord from the AC outlet. If the unit is moved with the power cord attached, it can cause damage to the cord which could result in fire or electric shock.



Do not use the exit tray hanging out of a table.



When carrying the unit, do not use the trays as handles.

Operating Safeguards



If the unit falls down or gets damaged, turn the unit off, and unplug the power cord. Otherwise, it may cause fire or electric shock.





Do not place any liquids or heavy items on the unit.
Accidental spillage of liquid into the unit may cause severe damage. If this occurs, turn the unit off, unplug the power cord, and contact your dealer for service.



Do not touch the scanning glass or their surroundings immediately after continuous scanning.
This area is very hot and can cause burns.

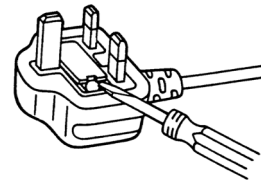
Safety Information (For United Kingdom only)

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

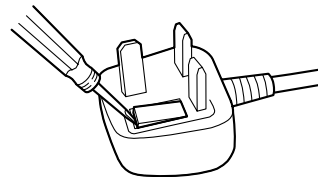
A 5 amp fuse is fitted in this plug. Should the fuse need to be replaced, please ensure that the replacement fuse has a rating of 5 amps and that it is approved by ASTA or BSI to BS1362. Check for the ASTA mark  or the BSI mark  on the body of the fuse. And you must refit the fuse cover when the fuse is replaced. If you lose the fuse cover, the plug must not be used.

How to replace the fuse:

Open the fuse compartment with a screwdriver and replace the fuse and fuse cover.



OR



Precautions

Installation

- Do not place the unit in direct sunlight, in a cold draft, or near heating apparatus.
- Do not place the unit near apparatus which generate electronic or magnetic noise.
- Protect the unit from static electricity.
- Do not move the unit immediately from a cold place to a warm place. It may cause dew.

CD-ROM

- Do not write or stick paper on the front and/or back of CD-ROM.
- Do not touch the data side of the CD-ROM. When handling the CD-ROM, be careful not to leave fingerprints or otherwise damage the CD-ROM.
- Do not leave the CD-ROM where it is directly exposed to sunlight or near a heater for extended periods.
- Do not throw or bend the CD-ROM.

Roller Cleaning Paper

- Keep the roller cleaning paper out of reach of small children.
- Do not store the roller cleaning paper in direct sunlight or in a place with a temperature over 40 °C (104 °F).
- Only use the roller cleaning paper to clean the rollers and scanning glass.
- For details about the roller cleaning paper, please refer to the Material Safety Data Sheet (MSDS). Please ask your Panasonic sales company about obtaining the Material Safety Data Sheet.

KEEP AWAY FROM FIRE.

Others

- Make sure to remove paper clips and staples from documents before scanning. Failing to do so can damage the unit, document, or both.
- Do not use thinner, benzine, or cleaners containing abrasives or surfactants, for cleaning the outside of scanner.
- Plug the power cord into an outlet from which you can easily unplug it.

Illegal Duplication

It is unlawful to make duplication of certain documents.

Duplicating certain documents may be illegal in your country/area.

Penalties of fines and/or imprisonment may be imposed on those found guilty. The following are examples of items that may be illegal to duplicate in your country/area.

- Currency
- Bank notes and checks
- Bank and government bonds, and securities
- Passports, licenses, official or private documents, identification cards, and the like
- Copyright materials, or trademarks without the consent of the owner
- Postage stamps, and other negotiable instruments

This list is not inclusive, and no liability is assumed for either its completeness or accuracy. In case of doubt, contact your legal counsel.

Notice

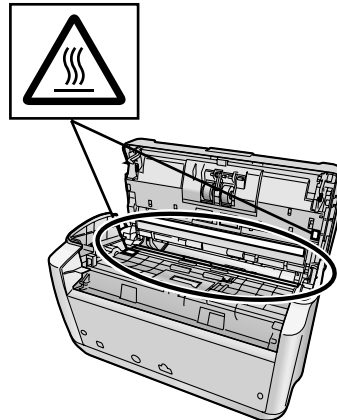
Install your machine near a supervised area to prevent illegal duplication from being made.

Security Notice

The management of documents and scanned data is the responsibility of the user. In particular, pay attention to the following points.

- Make sure you have the same number of pages for important documents both before and after scanning, and take care not to leave any pages in the scanner.
- Periodically back up important data.
- When having your computer or hard disk serviced, or when disposing of your computer or hard disk, completely erase any stored image data.

Caution Labels



CAUTION

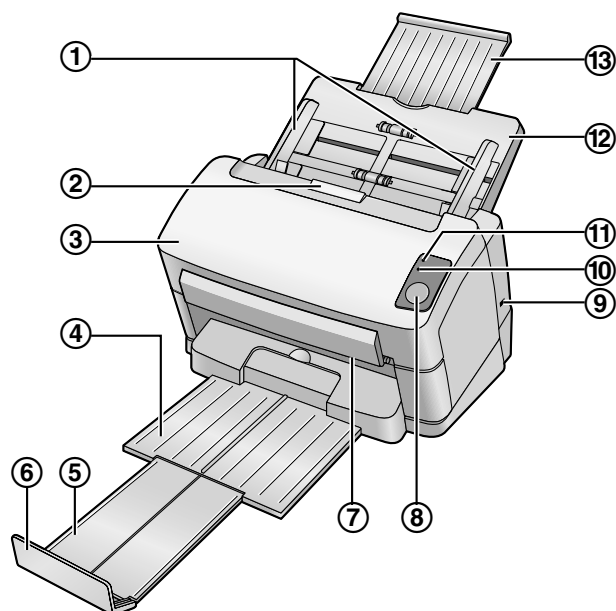


**HOT SURFACE
DO NOT TOUCH.**

The glass in the scanning area becomes very hot.
Exercise care not to touch heated areas, or you may get burned.

Main Unit

Front



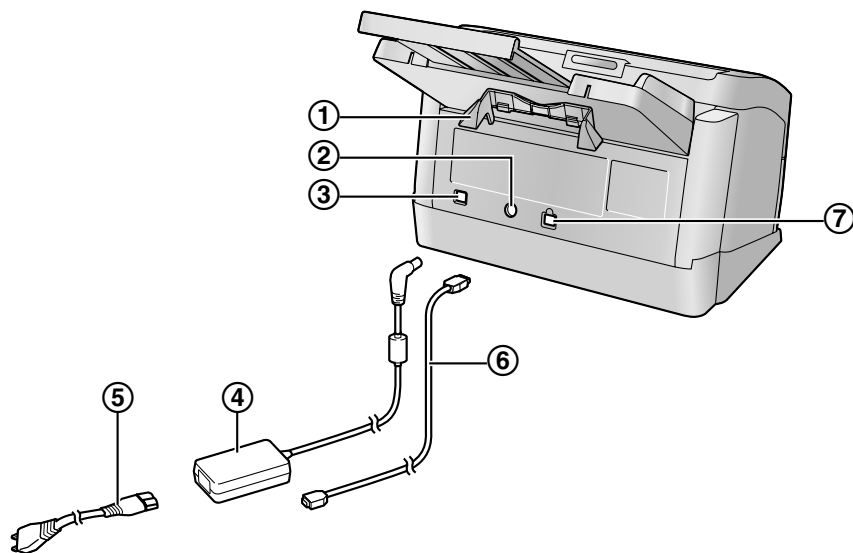
- ① **Document guides**
- ② **Door open button**
- ③ **ADF door**
- ④ **Exit tray**
- ⑤ **Exit extension tray**
- ⑥ **Exit stopper**
- ⑦ **Scanning lamps**
- ⑧ **Start / Stop button**
 - If you set [Wait Key] for "Manual Feed Mode"^{*1} in your application software, pushing this key starts scanning.
 - During scanning, pushing this key stops scanning.
- ⑨ **Security slot (for security cable)**
- ⑩ **LED (Red)**

Shows the scanner's status. For details, see "About LED" (page 13).
- ⑪ **LED (Green)**

Shows the scanner's status. For details, see "About LED" (page 13).
- ⑫ **Feed tray**
- ⑬ **Feed extension tray**

^{*1} For details on "Manual Feed Mode", refer to the RTIV Reference Manual or PIE Reference Manual.

Rear



① **Mixed batch card guide**

② **Power connector**

③ **Power switch**

④ **AC adaptor**

⑤ **Power cord**

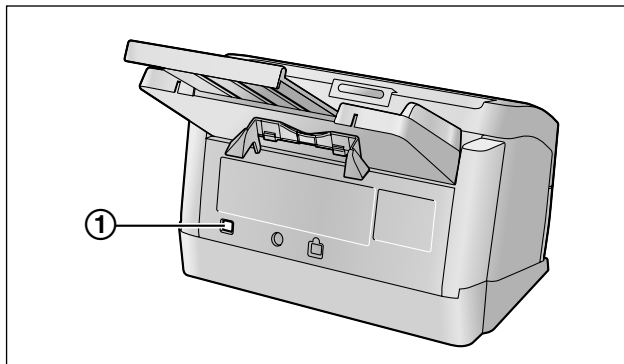
Plugs may vary in shape depending on country/area.

⑥ **USB cable**

⑦ **USB connector**

Turning on the Scanner Power

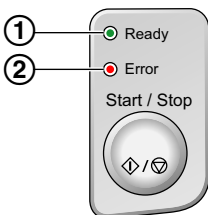
1. Press the power switch (①) of the scanner to ON.



- The LED (Green) will blink for about 30 seconds, and then it will become steady.

About LED

The status of the scanner can be established by the condition of the two LED indicators shown in the table below:



① LED (Green)	② LED (Red)	Status
ON	OFF	Ready
ON	Blink (Slow)	Caution
Blink (Fast)	OFF	Warming up ^{*1}
Blink (Slow)	OFF	Sleep
Blink (Slow)	Blink (Slow)	Caution / Sleep
OFF	ON	Error

^{*1} It will take about 30 seconds to initialize the scanner under the following conditions:

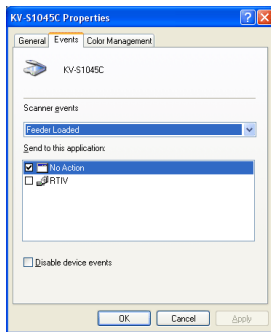
- Just after turning the power on
- After about 2 hours on sleep mode
- Over about 5 seconds with the ADF door open

Starting the Scanner Applications Automatically

The scanner application can be configured to start automatically when pressing the Start / Stop button, and/or placing documents on the feed tray. To accomplish this, follow the steps below.

Setting the event

1. Click [Start], and then click [Control Panel].
 - In Windows 2000, click [Start], and then click [Setting] - [Control Panel].
2. Select your scanner in the [Scanners and Cameras], and then display the scanner property dialog box by right clicking on the scanner icon.
 - In Windows Vista and Windows 2000, select your scanner in the [Scanners and Cameras Properties], and then display the scanner property dialog box by clicking [Properties] button.
3. Click the "Events" tab.
4. Select an event in the "Scanner events" list. The selected event activates a scanner application.

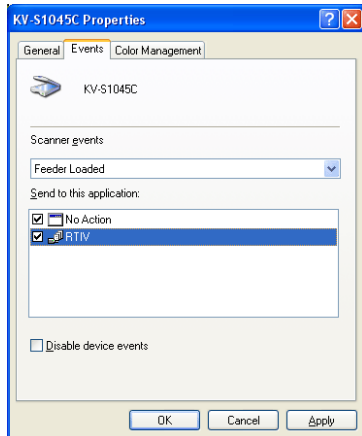


- The following events can be selected.

"Feeder Loaded"	An event occurs when placing documents on the feed tray.
"Start Button" ^{*1}	An event occurs when pressing the Start / Stop button of the scanner.

^{*1} If the scanner goes into sleep mode, you must press the Start / Stop button twice.

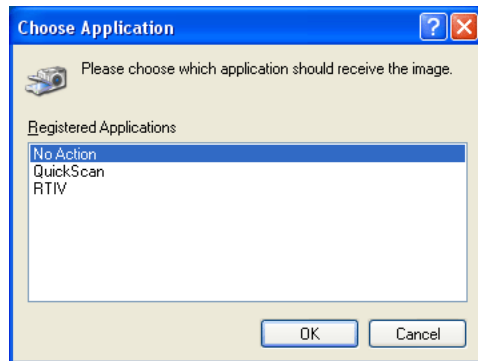
5. Select the check box of the desired scanner applications corresponding to the selected event in the "Send to this application" list.



- To disable the automatic activation of the scanner applications, set the "Disable device events" check box to on.
6. Click [OK].

Note

- When multiple applications are selected in the "Send to this application" list, the "Choose Application" dialog box will display, prompting you to select an application in the "Registered Applications" list. After an application has been selected, it starts. If only one application is selected, that application will be launched automatically.
In Windows 2000, the "Event on device: KV-S1045C" dialog box will display instead of the "Choose Application" dialog box.



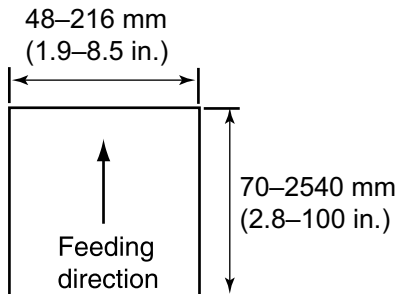
7. Restart your computer.

Preparing Documents

Acceptable Documents

The acceptable documents for this scanner are as follows.

Document size:



Paper thickness: 40–209 g/m² (11–55 lb.)

The height of all the documents on the tray should be less than 7.5 mm (0.3 in.).

This compares to 75 sheets (80 g/m² or 20 lb.) of new paper.

With the exception of ISO format cards, the minimum guaranteed feeding length is 70 mm (2.8 in.).

Single paper feeding is recommended for papers exceeding the legal size length.

Recommended paper: Plain paper

Acceptable cards

ISO format card:

Size: 85.6 x 54 mm (3.4 x 2.1 in.)

Thickness: 0.76 mm (0.03 in.)

Embossed card is also acceptable.

A maximum of 3 cards can be loaded on the feed tray. The height of the total cards (the total thickness including the embossing on each card) should be less than 5 mm (0.2 in.). Additionally, the embossing on each card must not get entangled with others.

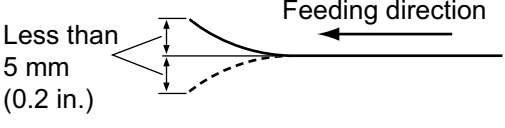
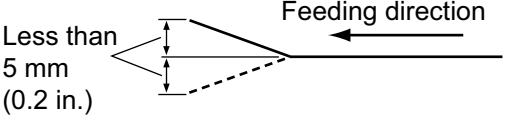
Use the landscape orientation when scanning an embossed card. If the scanning fails, place the card upside down, and then try again.

Use the mixed batch card guide (page 25) when scanning mixed media (cards and papers) at the same time.

Unacceptable Documents

The following types of documents may not scan properly:

- Curled, wrinkled or folded documents
- Documents must also meet the following conditions

Curl	
Folding	

- Carbon paper
- Thick or irregular documents such as envelopes
- Perforated or punched paper
- Non-rectangular or irregularly shaped paper, such as document with tags
- Coated paper
- Torn or frayed documents
- Extremely smooth, shiny paper, or paper that is highly textured
- Carbonless paper
- Light penetrating documents such as OHP sheet and tracing paper

Do not scan the following types of paper:

- Damaged or notched document/card
- Documents out of specified size, thickness, and weight
- Documents containing hard attachments such as metal or plastic (ex. clips or staples)
- Bound or glued documents
- Cloth and plastic films
- Document with wet ink or cinnabar seal ink
- Thermal or photosensitive paper
- Photographs
- OHP sheets, other plastic films, or metallic sheets

Notes about documents for scanning

- Depending on the paper type, scanning results may be poor when you scan unacceptable documents, or even documents that should be acceptable.
If a paper jam or double feeding occurs, try scanning again after doing the following:
 - Clean the rollers and sensors.
 - Reduce the number of sheets of paper loaded on the feed tray.
 - Change the scanning resolution.

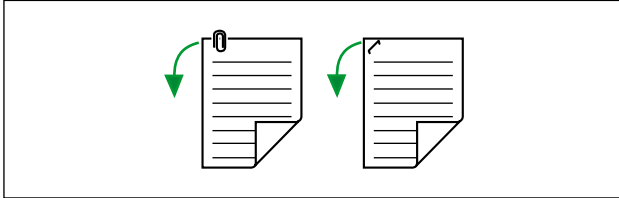
Notes about double feed detection

- This scanner is equipped with an ultrasonic sensor to detect double feeding.
The width of documents that can be detected is A5 or larger (148 mm (5.8 in.)).

Scanning Documents

Notice

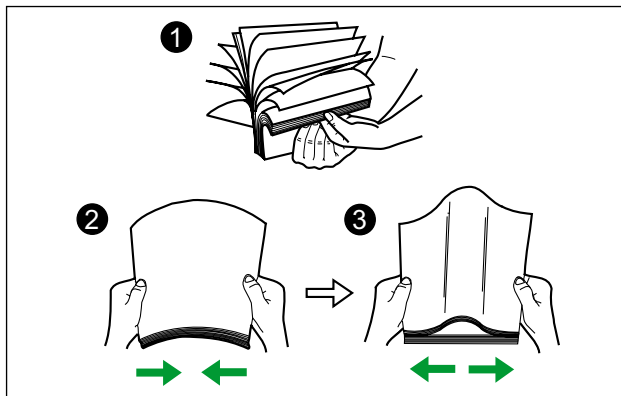
- Make sure to remove paper clips and staples from documents before scanning. Failing to do so can damage the unit, document, or both.



- Curled documents may cause a paper jam or damaging the document, therefore, set the document flat before scanning.
- When scanning important documents, confirm that the number of scanned images matches the number of pages in the document.
- Remove documents from the exit tray after they have been scanned.

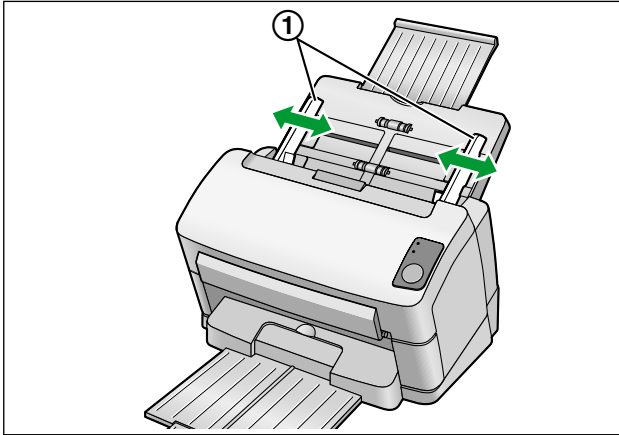
1. Fan the documents.

- Documents that have been stapled together or stacked together (as in a file folder) will need to be separated.
- ① Fan the stack of documents to separate all the edges.
 - ② Hold both ends and bend the documents as shown in the illustration.
 - ③ To flatten the documents, hold firmly and pull them apart as shown in the illustration.

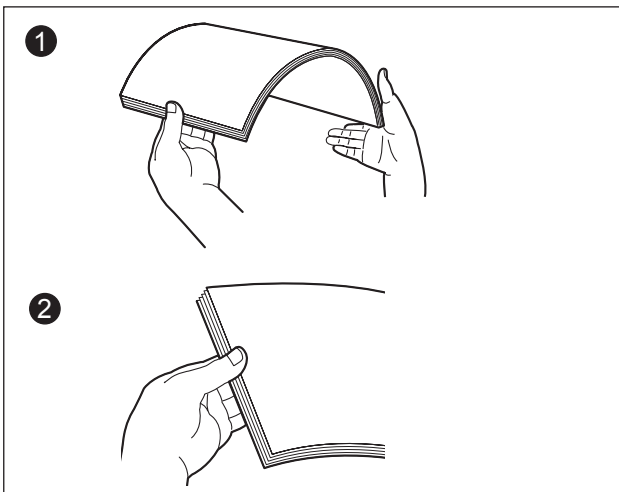


Repeat these steps as necessary.

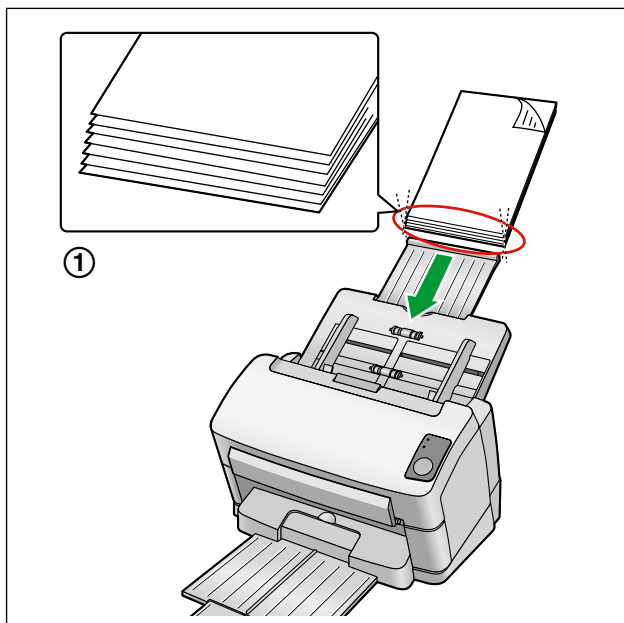
2. Adjust the document guides (①) slightly larger than the actual size of the documents.



3. Carefully align the documents.
 - The documents feed better when the leading edges are aligned slantwise as shown in the illustration.

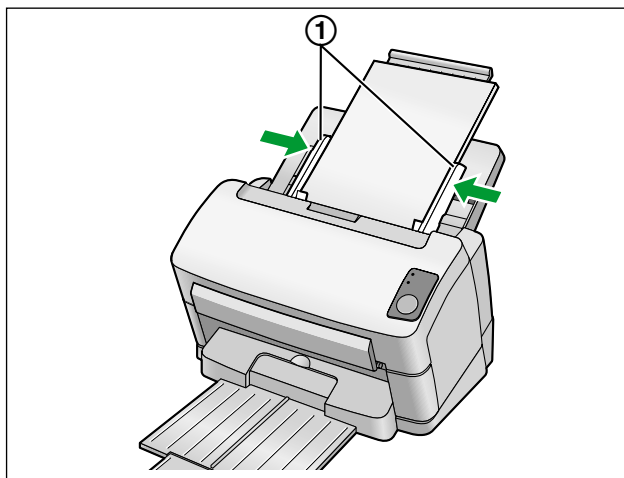


4. Place the documents on the feed tray with the side to be scanned facing down.
 - Set the leading edge of documents as shown in the illustration (①).

**Note**

- Place the documents as shown in the illustration.
- The height of all the documents on the tray should be less than 7.5 mm (0.3 in.). Exceeding this height might cause paper jams or skewing.

5. Adjust the document guides (①) to the size of the documents to be scanned.



6. Open your scanning application^{*1} and scan the documents.

^{*1} The software RTIV and QuickScan Pro demo, included with the scanner, can be used for scanning the documents.

Clearing Paper Jams

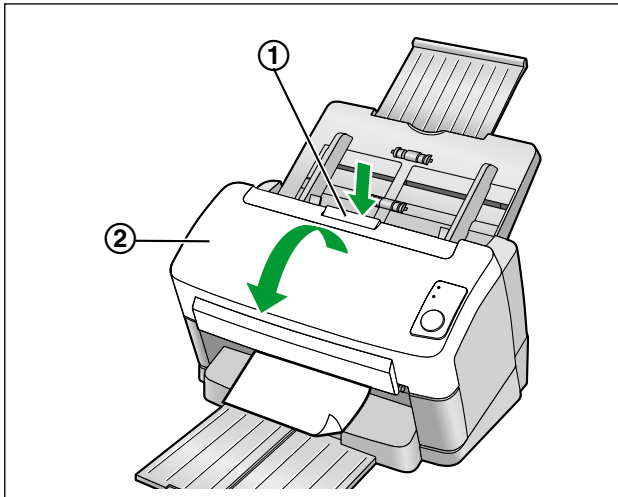
If a paper jam occurs, the message "A paper jam has occurred" and an error code (Uxx) is displayed in the User Utility application. Remove the jammed sheet according to the following instructions.

CAUTION

- The scanning glass area may be very hot.
When the scanning glass is hot, don't touch the area around it.
Wait until the scanning glass cools down before removing paper.

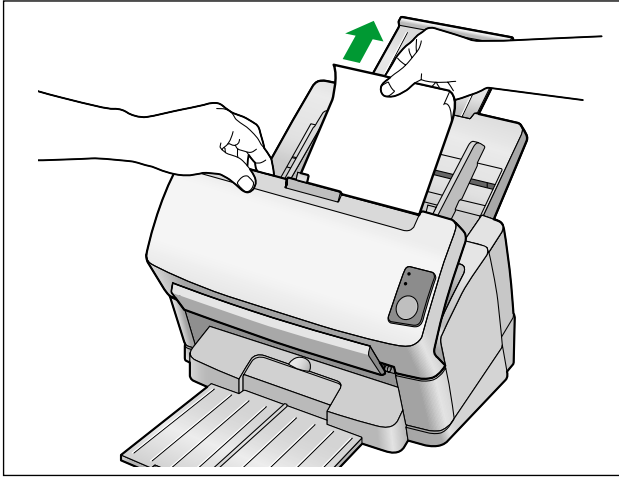
Removing paper jams from the feeding section

1. Remove all documents from the feed tray.
2. Press the door open button (①), and open the ADF door (②).

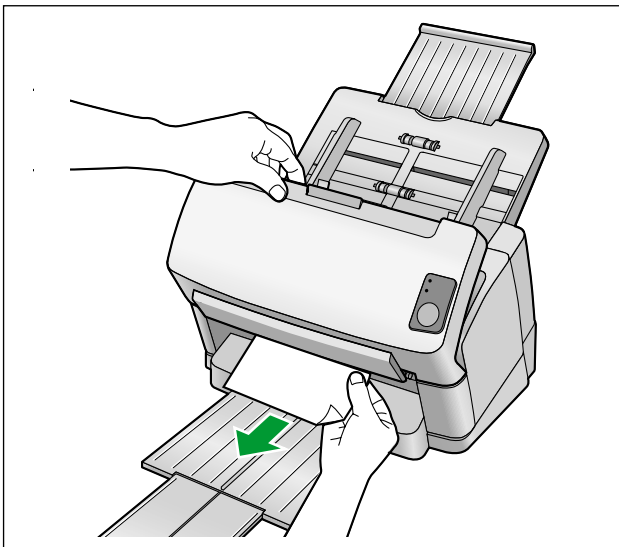


3. Remove the jammed document.

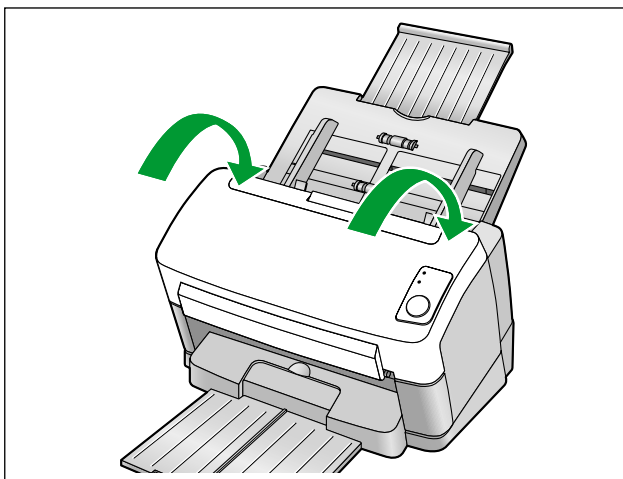
- If the document is jammed in the feed tray area, pull it backwards as shown in the illustration.



- If the document is jammed in the exit area, pull it forward as shown in the illustration.



4. Close the ADF door.
 - Push both sides of the ADF door down slowly until it clicks into place.

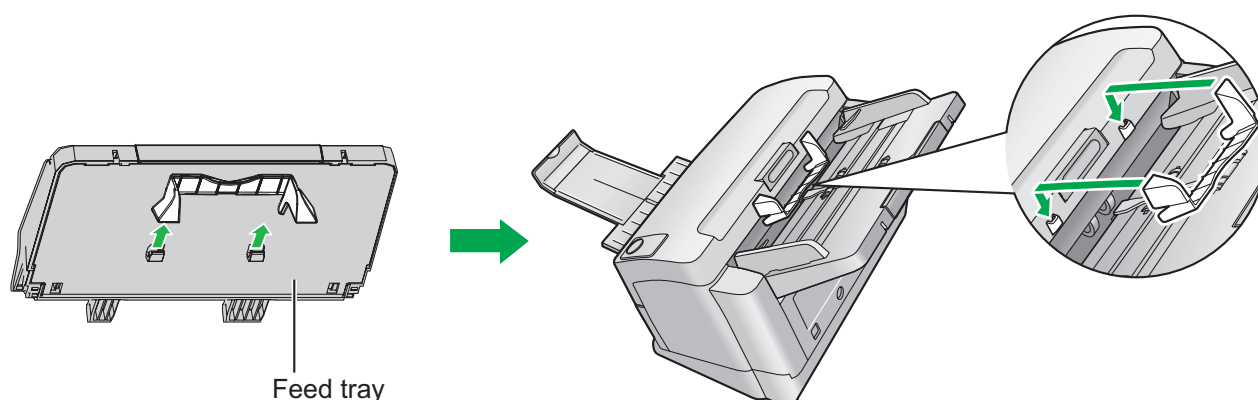


Mixed Batch Card Guide

No adjustment to the document guide is required when using the mixed batch card guide. The mixed batch card guide prevents a card from skewing when scanning paper documents and a card simultaneously.

Installing the mixed batch card guide

Install the mixed batch card guide as shown in the following illustration.



Using the mixed batch card guide

Set paper documents on the feed tray, and a card on the mixed batch card guide respectively.

- The card set on the mixed batch card guide is fed after completing the paper document scanning.
- The mixed batch card guide is suitable for the following card.

ISO format card:

Size: 85.6 x 54 mm (3.4 x 2.1 in.)

Thickness: 0.76 mm (0.03 in.)

Embossed card is also available.

- Set the card horizontally.

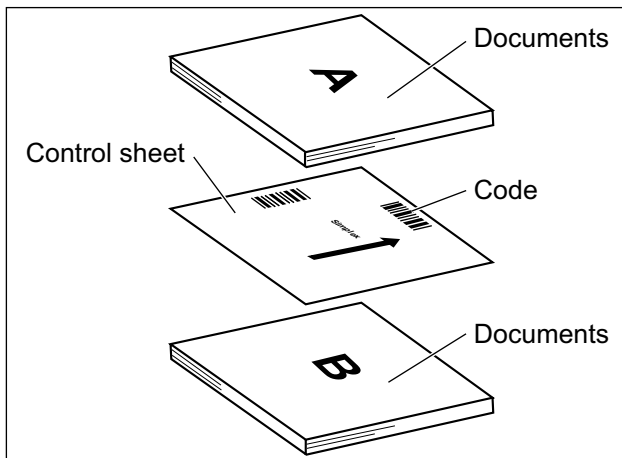
Note

- When using the mixed batch card guide, the document guides cannot be adjusted to less than A5 size.
- Set only one card at a time.
- Make sure that the total height of the paper on the feed tray does not exceed 2 mm (0.08 in.). This is equivalent to about 20 sheets at 80 g/m² or 20 lb.

Using Control Sheets

By using control sheets, you can change the scanning conditions in the middle of scanning. Placing a control sheet in the middle of a document lets you change the scanning conditions for all pages scanned after the control sheet.

Print out control sheets from the provided CD-ROM.



Control sheet functions

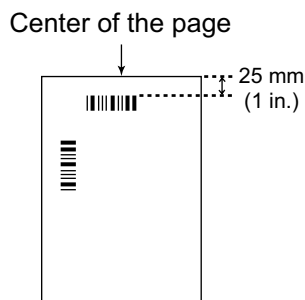
Simplex, Duplex, Binary, 256 level gray, Color, Dynamic Threshold, Dither, Error diffusion, Function #1–#9, Separation Sheet

Note

- Multiple control sheets can be used.
- To use control sheet functions, your scanning application must support control sheets. When using control sheets, refer to the instruction manual of your scanning application.

About Printing Control Sheets

- Print the control sheet at the specified size; do not enlarge or reduce the size.
- When printing the control sheet, make sure that the pattern is 25 mm (1 in.) from the top of the page and centered horizontally.



<Example A4 printout>

- Use the control sheet that is the same size as the document you are scanning.
- Be careful not to get the control sheet dirty. Do not fold or crease the control sheet. Scanning will not be performed properly.
- For details on control sheet and separation sheet, refer to section "Detect Control Sheet" in the PIE Reference Manual.

Printing control sheets

Note

- In order to print control sheets, Adobe® Reader® must be installed on your computer.
- Refer to the instruction manual for your printer for details about changing print settings.

1. Insert the CD-ROM into the CD/DVD driver on your computer.
 - If you have a feature called "Autorun" activated, the installation process will start automatically.
 - The setup window will appear.

Note

- If the AutoPlay dialog box is displayed in Windows Vista, select "CDRun.exe".
- If the program does not start automatically, from [My Computer] ([Computer] in Windows Vista), select the CD/DVD drive, and then double-click "CDRun.exe".

2. Select your scanner.
3. Select [Control Sheet] from the "Manuals" list on the right side of the screen.
4. Print the control sheets at the same size as your document.

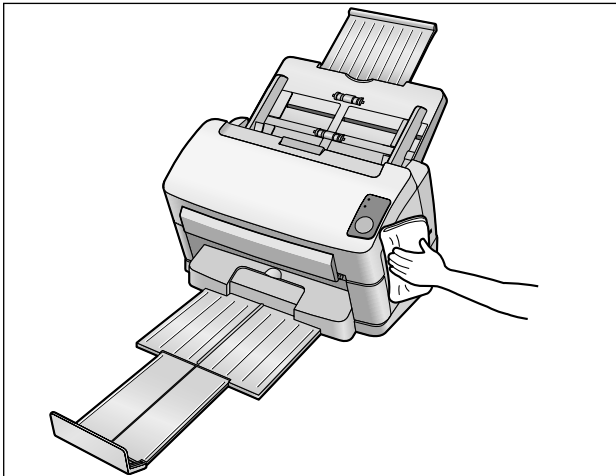
Cleaning the Scanner

Outside of the Scanner

Notice

- Do not use thinner, benzine, or cleaners containing abrasives or surfactants, for cleaning the outside of the scanner.
- Clean the scanner at least once a month.

1. Turn OFF the scanner power.
2. Clean the cover with a soft cloth.

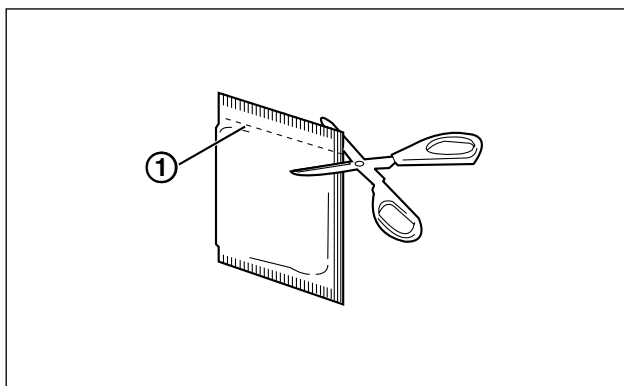


Inside of the Scanner

- Clean the scanner at least once a week or when 2,000 sheets have been scanned, whichever comes first.
- Clean the rollers and sensors if paper jamming or double feeding occurs frequently.
- If double feed detection does not function properly, clean the double feed detectors.
- Clean the scanning glass area and reference area when black or white lines appear on the scanned images.
- If the documents you are scanning are dirty, then the scanner parts will also become dirty. To maintain proper scanning, clean the scanner parts frequently.

About the roller cleaning paper

Open the roller cleaning paper on the dotted line (①), and take out the roller cleaning paper.



Notice

- Keep the roller cleaning paper out of reach of small children.
- Do not store the roller cleaning paper in direct sunlight or in a place with temperature over 40 °C (104 °F).
- Only use the roller cleaning paper to clean the rollers and scanning glass.
- For details about the roller cleaning paper, please refer to the Material Safety Data Sheet (MSDS). Please ask your Panasonic sales company about obtaining the Material Safety Data Sheet.

Note

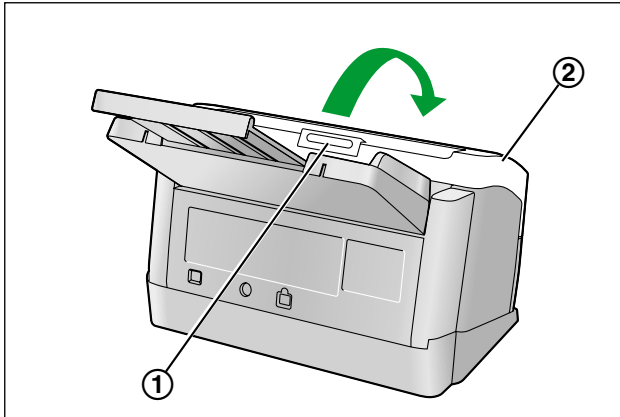
- If the bag is left opened for a long period of time before using it, the alcohol will evaporate. Please use the roller cleaning paper immediately after opening the bag.
- To purchase additional roller cleaning paper (KV-SS03), you can contact the dealer where the scanner is purchased, or you can call our Supplies and Accessories department at 1-800-726-2797 (U.S.A. only).

Cleaning the Rollers

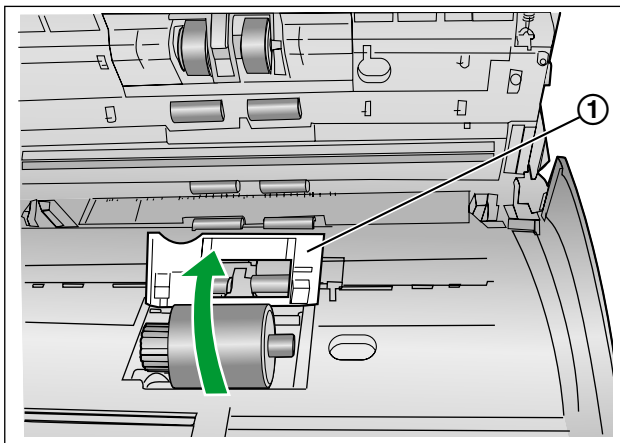
CAUTION

- The scanning glasses area may be very hot.
When the scanning glass is hot, work after waiting to get cold without touching around it.

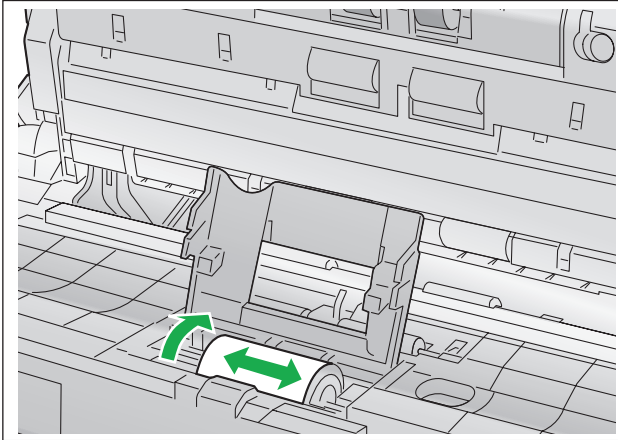
1. Turn OFF the scanner power.
2. Press the door open button (①), and open the ADF door (②).



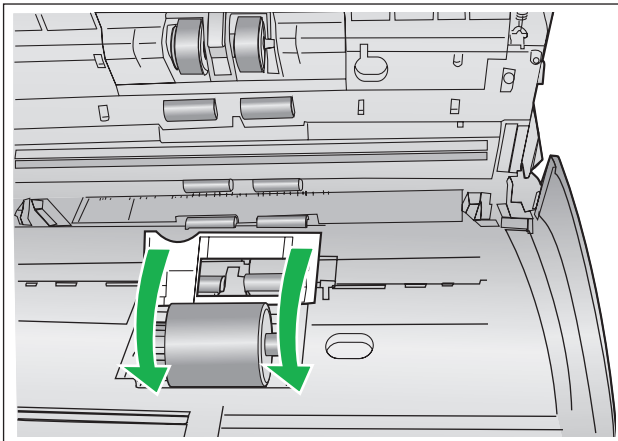
3. Open the paper feed roller cover (green) (①).



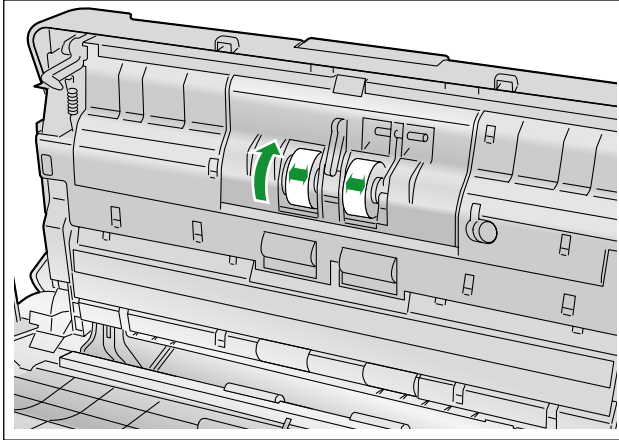
4. Use the roller cleaning paper (KV-SS03) to remove the dirt from the surface of all rollers.
 - When wiping off dirt from the roller surface, hold the roller to prevent it from rotating. Wipe the roller from one end to the other in the direction indicated by the arrow, all the way around, as shown in the illustration.



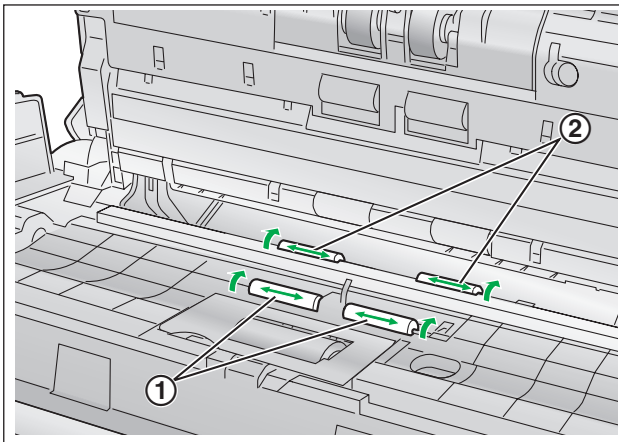
5. Close the paper feed roller cover (green) firmly.
 - Make sure to close both sides of the paper feed roller cover (green) until they click into place.



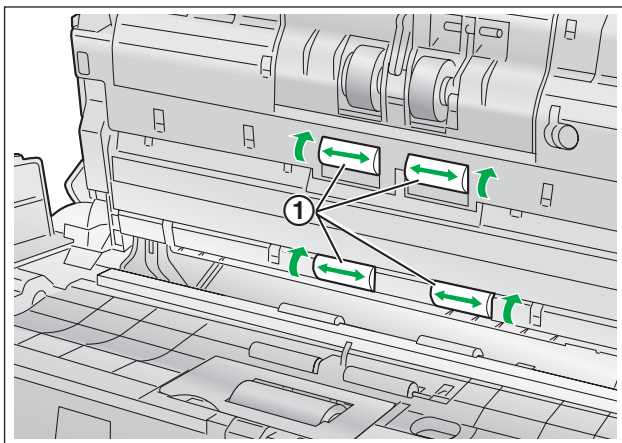
6. Use the roller cleaning paper to clean the surface of the double feed prevention roller.
 - Wipe the roller from one end to the other (in the direction of the arrow) all the way around them, as shown in the illustration.



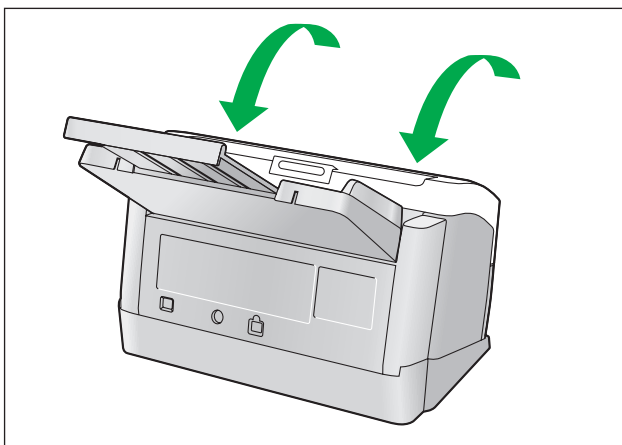
7. Use the roller cleaning paper to clean the surface of the conveyor rollers (①) and exit rollers (②).
 - Wipe the rollers from one end to the other (in the direction of the arrow) all the way around them, as shown in the illustration.



8. Use the roller cleaning paper to clean the surface of the free rollers (①).
 - Wipe the rollers from one end to the other (in the direction of the arrow) all the way around them, as shown in the illustration.



9. Close the ADF door.
 - Push both sides of the ADF door down slowly until it clicks into place.



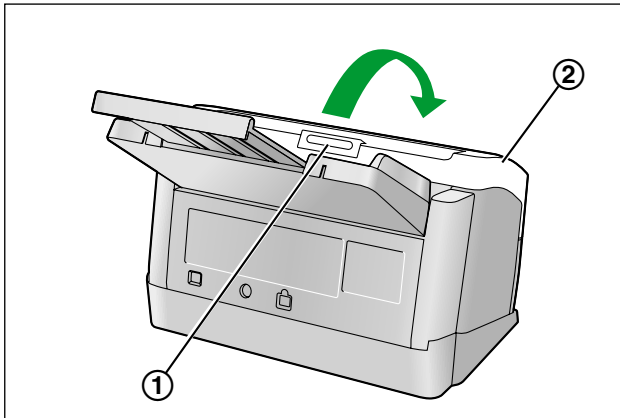
10. Reset the roller cleaning counter in User Utility to 0.
 - Turn ON the scanner power.
 - Start User Utility, and in the window, click the [Clear Counter] button for "After Clean Roller" to reset to counter to 0.
 - For details, refer to the User Utility Reference Manual.

Cleaning the Scanning glass, Reference area, and Double feed detectors

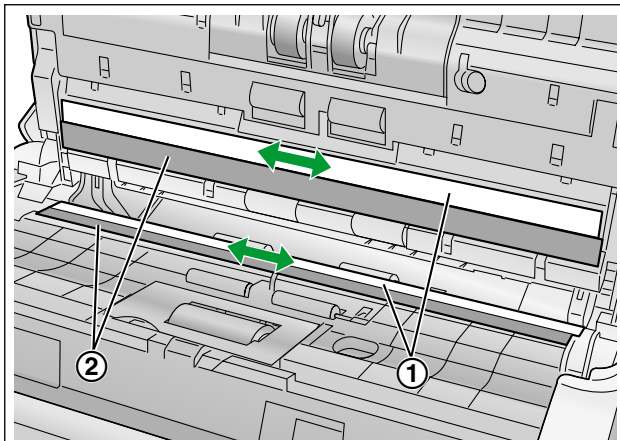
CAUTION

- The scanning glasses area may be very hot.
When the scanning glass is hot, work after waiting to get cold without touching around it.

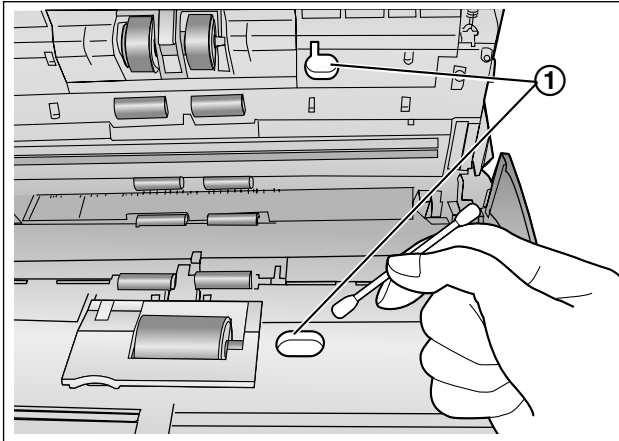
1. Turn OFF the scanner power.
2. Press the door open button (①), and open the ADF door (②).



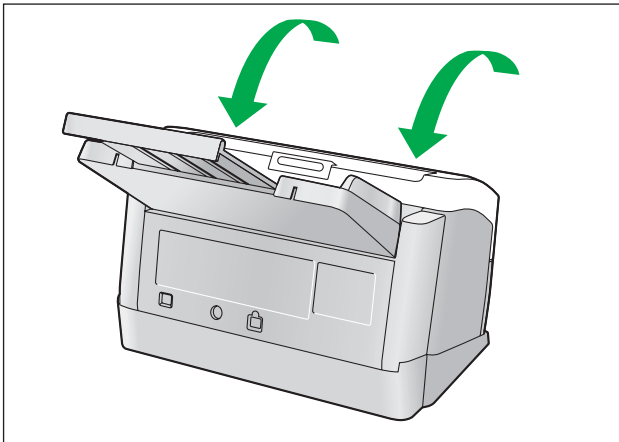
3. Clean the scanning glass area (①) and reference area (②) using the roller cleaning paper.



4. Remove dust on the double feed detectors (①) with a cotton swab.



5. Close the ADF door.
 - Push both sides of the ADF door down slowly until it clicks into place.



Replacement Parts

	Part Name	Part Number	Notes
Replacement Parts	Roller exchange kit <ul style="list-style-type: none">Paper feed roller (1 piece)Double feed prevention roller (1 piece)	KV-SS035	—
	Roller cleaning paper	KV-SS03	See "About the roller cleaning paper" (page 29).

Note

- To purchase replacement parts, please contact your dealer.

The double feed prevention roller and the paper feed roller are consumables. Please purchase the "Roller exchange kit (KV-SS035)", and replace each roller periodically.

The usable life of each roller is as follows.

- Paper feed roller / Double feed prevention roller:
100,000 sheets

The scanner counter can be confirmed by using the User Utility.

Replacing Parts

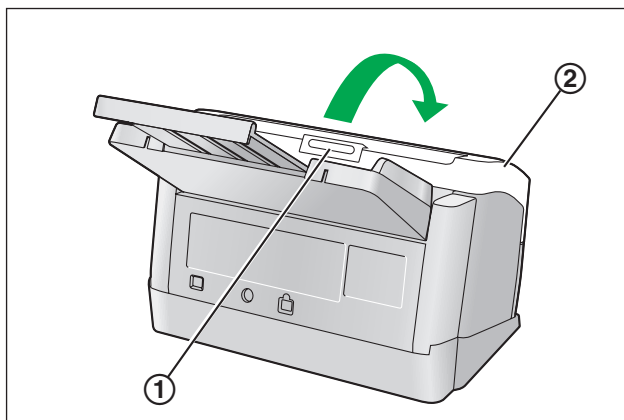
If double feeding or paper jam occurs frequently even after cleaning the roller (page 30), please call your dealer to order a "Roller exchange kit (KV-SS035)", and replace the double feed prevention roller, and paper feed roller.

CAUTION

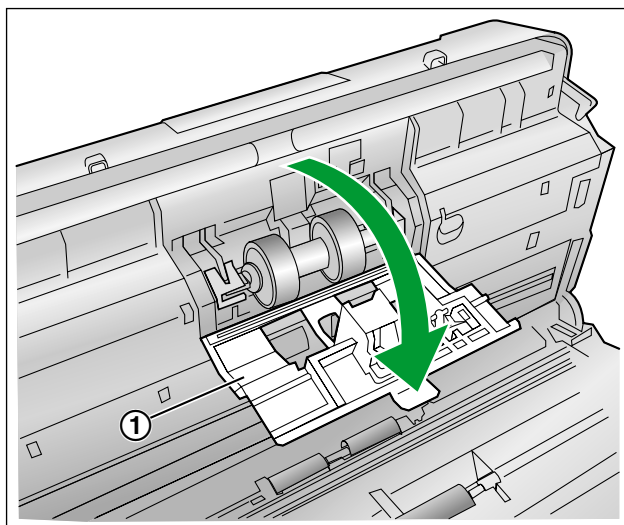
- The scanning glasses area may be very hot.
When the scanning glass is hot, work after waiting to get cold without touching around it.

Replacing the Rollers

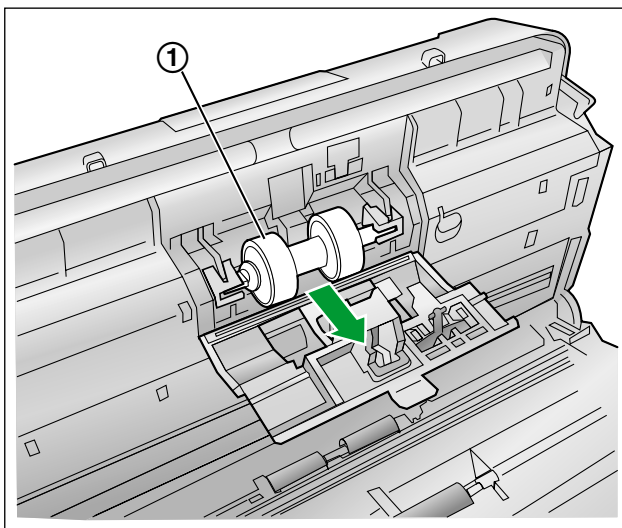
1. Turn OFF the scanner power.
2. Press the door open button (①), and open the ADF door (②).



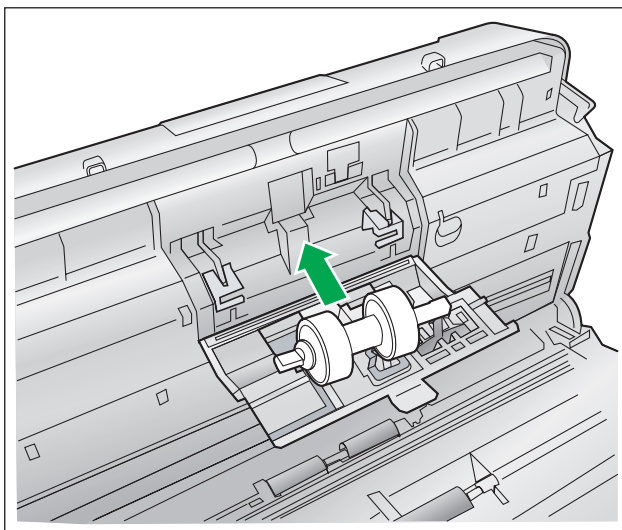
3. Open the double feed prevention roller cover (green) (①).



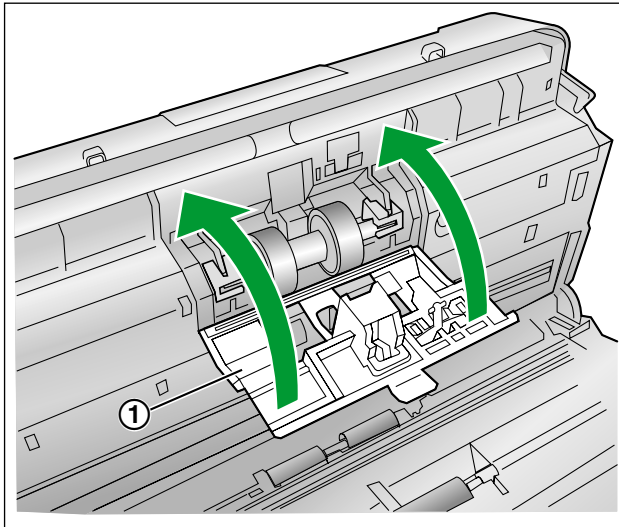
4. Remove the double feed prevention roller (①).



5. Take out the new double feed prevention roller in the optional "Roller exchange kit (KV-SS035)".
6. Install the new double feed prevention roller into the metal holder with the longer groove facing to the right-side (rear view).



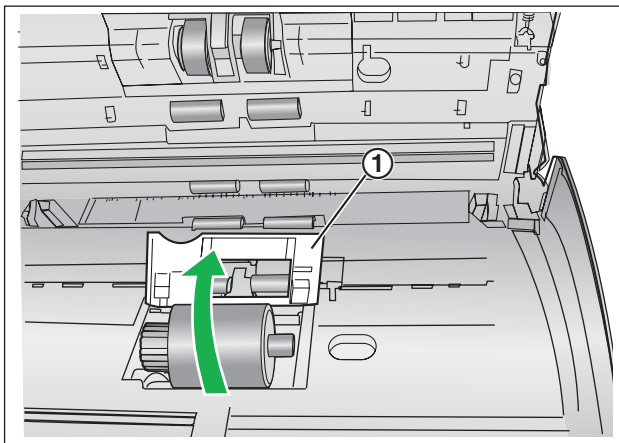
7. Close the double feed prevention roller cover (green) (①) firmly.



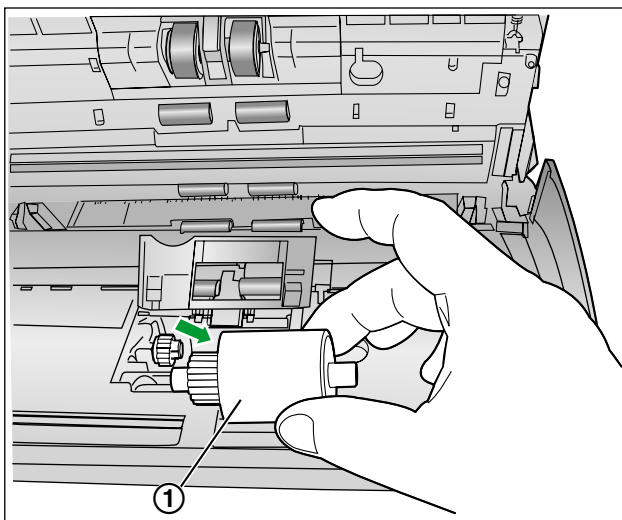
Notice

- Be sure to close the double feed prevention roller cover until it clicks into place.

8. Open the paper feed roller cover (green) (①).

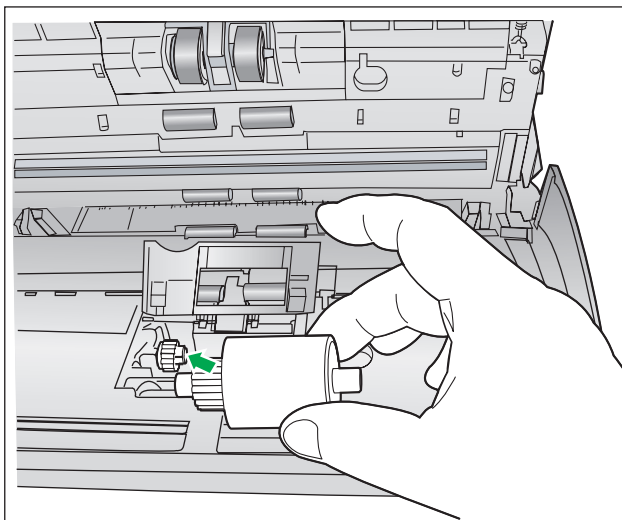


- 9.** Remove the paper feed roller (①).

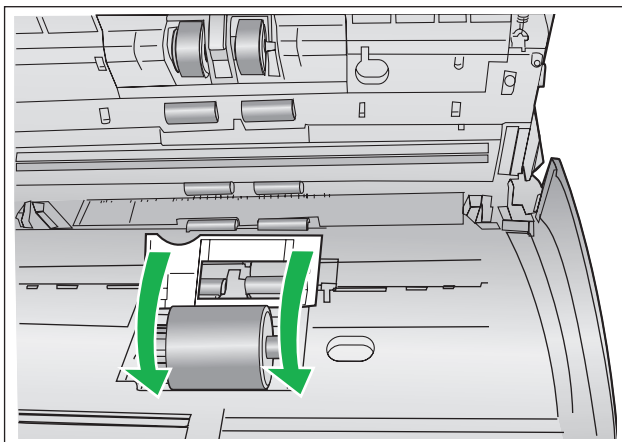


- 10.** Take out the new paper feed roller in the optional "Roller exchange kit (KV-SS035)".

- 11.** Install the new paper feed roller with the gear on the left side.



12. Close the paper feed roller cover (green) firmly.

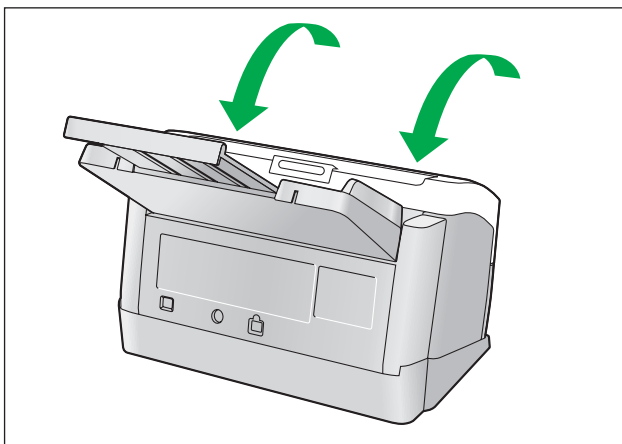


Notice

- Make sure to close both sides of the paper feed roller cover (green) until they click into place.
- After installing the paper feed roller, confirm that the paper feed roller can rotate in the feeding direction.

13. Close the ADF door.

- Push both sides of the ADF door down slowly until it clicks into place.



14. Reset the roller replacing counter in User Utility to 0.

- Turn ON the scanner power.
- Start User Utility, and in the window, click the [Clear Counter] button for "After Replace Roller" to reset the counter to 0.
- For details, refer to the User Utility Reference Manual.

Troubleshooting

If a problem occurs while the scanner is being used, check the following items and check the scanner status with User Utility. If the unit still malfunctions, turn it OFF, unplug the power cord from the AC outlet, and call for service.

Symptom	Possible Cause	Remedy
The ready indicator does not light when the power switch is turned ON.	The power cord is not plugged in.	Insert the power plug firmly.
	Problem with the AC adaptor.	Unplug the power cord from the AC outlet, and call for service.
The computer does not recognize the scanner. The scanner is not functioning correctly.	The scanner is not connected to the computer correctly.	Connect the USB cable correctly.
	The software is not installed correctly.	Uninstall the software from the computer, and then install the software again. (Refer to "Installing the Software" in the Installation Manual.)
	The USB interface of the computer is not installed correctly.	Check the computer whether the USB interface of your computer is installed correctly using the device manager's property.
	The scanner is connected to the computer via a USB hub, and the USB hub is not functioning well.	Do not connect via the USB hub. Connect the unit to the computer directly.
	There is a problem with the USB cable.	Use the included USB cable or a certified Hi-speed USB 2.0 cable.
Scan speed is slow.	The scanner is connected over a USB 1.1 connection.	Connect over USB 2.0.
The document has been loaded on the feed tray, but the scanner does not start scanning.	The document is not loaded properly.	Load the document correctly. (page 19)
	The sensor cannot detect the document as the edge of the document is curled.	Flatten the document (page 17) and load it again (page 19).

Symptom	Possible Cause	Remedy
Double feeding occurs frequently or the scanner stops loading while scanning.	The rollers are dirty.	Clean the rollers. (page 30)
	The paper feed roller, or double feed prevention roller have become worn down.	Replace the paper feed roller or double feed prevention roller (page 37).
	Right and left sides of the document to be scanned are not the same in height, because of curling or folding.	Flatten the document (page 19) and load it again after reducing the pages.
	The document is printed on an unsupported type of paper or thick paper.	Make a copy of the document on paper of an acceptable type and thickness (page 16), and scan the copy.
	The length of the paper is too short.	Make a copy of the document on paper of an acceptable size (page 16), and scan the copy.
	The document is not aligned correctly.	Realign the document. (page 19)
	The document set on the feed tray has too many pages.	Remove pages from the document until it is under the limit mark on the document guides.
Paper jams occur frequently.	The document is wrinkled.	Smooth out the document.
	The rollers are dirty.	Clean the rollers. (page 30)
	The document is not aligned correctly.	Realign the document. (page 19)
	The document set on the feed tray has too many pages.	Remove pages from the document until it is under the limit mark on the document guides.
Scanned image is skewed.	The document guides are not adjusted to the size of the document to be scanned, or the document to be scanned is set slanted on the feed tray.	Adjust the document guides properly to the size of the document to be scanned (page 19).
	Right and left sides of the document to be scanned are not the same in height, because of curling or folding.	Flatten the document (page 17) and load it again after reducing the pages.
The scanned document is blank.	The document to be scanned was loaded upside down.	Load the document correctly. (page 19)
Vertical lines appear on the scanned document.	The scanning glass is dirty.	Clean the scanning glass. (page 34)
The scanning density is uneven.	The scanning glass is dirty.	Clean the scanning glass. (page 34)

Appendix

Symptom	Possible Cause	Remedy
The color of the scanned document is extremely different from the original document.	The settings of the computer monitor are wrong.	Adjust the computer monitor settings.
Dark spots or noise appear on the scanned documents.	The scanning glass is dirty.	Clean the scanning glass. (page 34)

If you still experience problems after following these suggestions, please contact our Technical Support Department at 1-800-726-2797 for further assistance (U.S.A. only).

Repacking Instructions

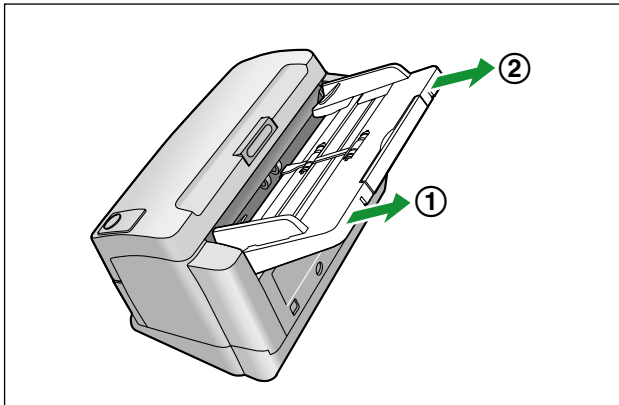
It is highly recommended that you keep the original carton and *ALL* packing materials. If you need to transport or ship the scanner, please follow these instructions.

Note

- Improper repacking of the scanner may result in a service charge to repair the scanner.
- Please use the original carton and all of the original packing materials.
- The scanner should be handled in the correct (horizontal) position.

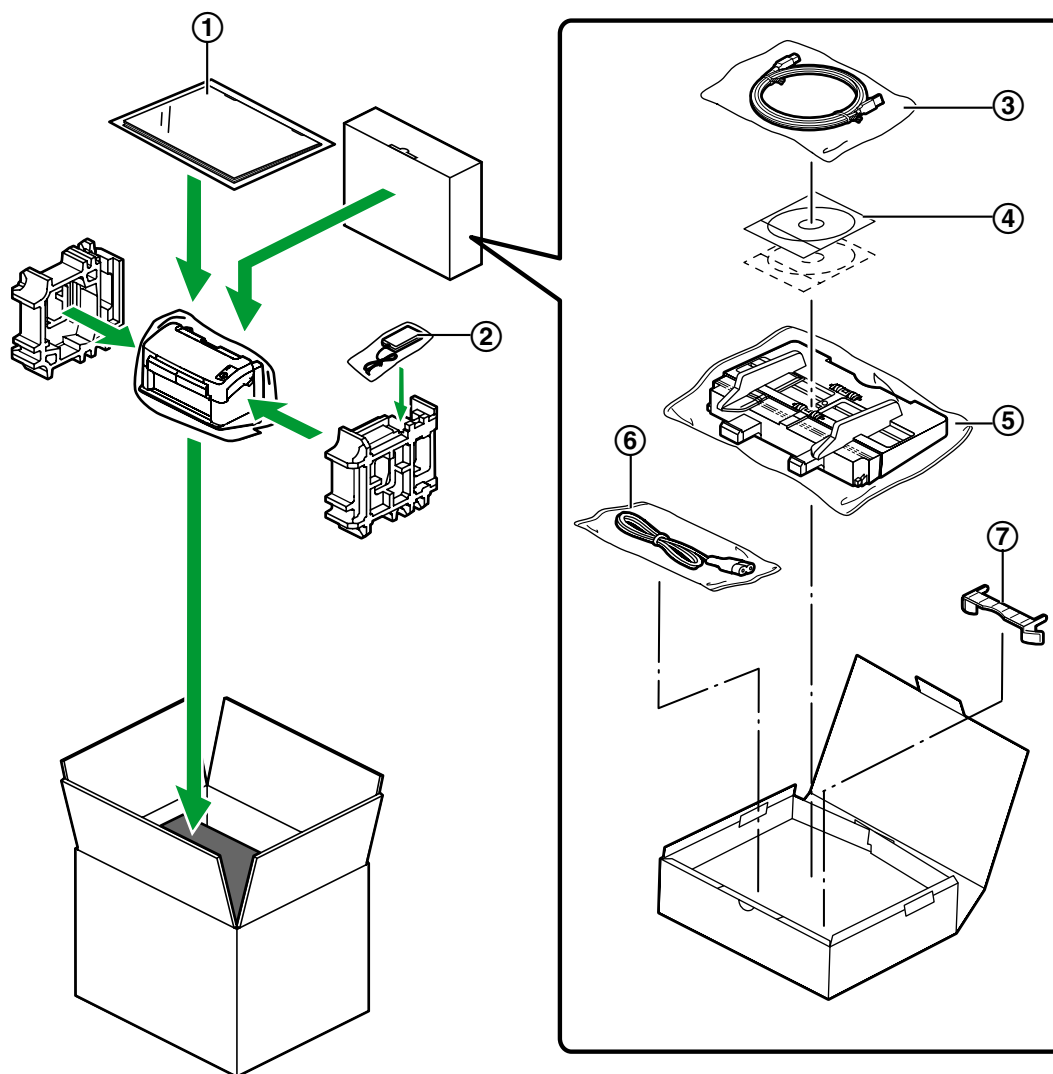
Required Materials

- Original scanner carton and packing materials
 - Shipping tape and scissors
1. Turn OFF the scanner power.
 2. Unplug the power cord from the outlet, and remove the AC adaptor and USB cable from the scanner.
 3. Remove the feed tray from the scanner.
 - Lift up the feed tray to unlock, and then pull the left (①) and right (②) sides out of the scanner in that order.



4. Put the mixed batch card guide into the accessory box.

5. Pack the scanner.



- ① Installation Manual
- ② AC adaptor
- ③ USB cable
- ④ Drivers & Utilities / Manuals CD-ROM
- ⑤ Feed tray
- ⑥ Power cord
- ⑦ Mixed batch card guide

Specifications

Item		KV-S1045C	
Scanning	Scanning face		Duplex
	Scanning method		CCD (600 dpi) Background: Black
	Scanning size		218 mm (8.5 in.)
	Scanning speed* ¹ (portrait, 200 dpi)	Binary	Simplex Letter: 40 pages/min. A4: 40 pages/min. Duplex Letter: 80 images/min. A4: 80 images/min.
		Color	Simplex Letter: 40 pages/min. A4: 40 pages/min. Duplex Letter: 80 images/min. A4: 80 images/min.
	Resolution		100–600 dpi (1 dpi step) Optical: 600 dpi
	Tonal gradation		Binary, Grayscale, Color, MultiStream: Binary & Grayscale, Binary & Color
	Image control		Image emphasis, Dynamic threshold, Automatic separation, Invert, White level from paper
	Compression		JPEG (color, grayscale)
	Paper	Size	48 × 70 mm (1.9 × 2.8 in.) to 216 × 2540 mm (8.5 × 100 in.) ²
		Thickness	0.05–0.2 mm (2.0–7.9 mils) Note: 1 mil = 0.001 in.
		Weight	40–209 g/m ² (11–55 lb.)
	Card* ⁴	Size	85.6 × 54 mm (3.4 × 2.1 in.)
		Thickness	0.76 mm (0.03 in.)

Item			KV-S1045C
Scanning	Feed tray capacity		75 sheets [80 g/m ² (20 lb.) New Paper]
	Exit tray capacity		75 sheets [80 g/m ² (20 lb.) New Paper]
	Life ^{*3}		500,000 sheets
	Roller replacement ^{*3}		100,000 sheets
	Maintenance		Clean the rollers, sensors, and scanning glass once a week or every 2,000 sheets scanned.
Scanner	External dimensions (Width×Depth×Height)		317 × 209 × 196 mm (12.5 × 8.2 × 7.8 in.) (When the exit tray is closed and without the feed tray)
	Weight		4.5 kg (9.9 lb.)
	Power requirement		External power supply (AC adaptor) AC100–120 V, 50/60 Hz AC220–240 V, 50/60 Hz
	Power consumption	Scanning mode (Maximum)	38 W
		Minimum (Standby)	23 W
		Sleep mode	5.3 W or less
		When the power switch is OFF	0.3 W or less (While the AC adaptor is connected to the AC outlet)
Operating Environment			Temperature:15–30 °C (59–86 °F), Humidity: 20–80 % RH
Storage Environment			Temperature: 0–40 °C (32–104 °F), Humidity: 10–80 % RH

^{*1} The scanning speed differs depending on the host computer, operating system, application, measuring method, the data quantity of the image, and paper type. The scanning speed was measured using a proprietary method.

^{*2} Although you can specify other paper sizes, scanning quality cannot be guaranteed.

^{*3} The life of the scanner and the rollers is the estimated value when using the A4 or Letter sized standard paper [64 g/m² or 80 g/m² (20 lb.)]. It may vary depending on the kinds of paper, usage and cleaning intervals.

^{*4} Embossed card is also available.

"Weight in pounds" of paper represents the weight of 500 [432×559 mm (17×22 in.)] sheets.

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